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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Mon Jun 04 17:32:57 EDT 2007

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\*\*\*\*\*

Reviewer Comments:

atgagacgaa catctgttga gtaa

7584

12

Please delete the "12" above (at the end of the submitted file, after  
Sequence 2)

\*\*\*\*\*

Application No: 10568414 Version No: 1.0

Input Set:

Output Set:

Started: 2007-06-01 16:02:37.824  
Finished: 2007-06-01 16:02:38.520  
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 696 ms  
Total Warnings: 0  
Total Errors: 2  
No. of SeqIDs Defined: 2  
Actual SeqID Count: 2

Error code	Error Description
E 355	Empty lines found between the amino acid numbering and the
E 321	No. of Bases conflict, this line has no nucleotides SEQID (2)

# SEQUENCE LISTING

<110> Aasly, Jan O  
 Wszolek, Zbigniew K  
 Farrer, Matthew J

<120> Polynucleotide

<130> U1913

<140> 10568414

<141> 2007-06-01

<150> NO20045612

<151> 2004-12-23

<160> 2

<170> PatentIn version 3.1

<210> 1

<211> 2527

<212> PRT

<213> Homo sapiens

<220>

<221> MISC\_FEATURE

<222> (2019)..(2019)

<223> X may be any amino acid except glycine.

<300>

<308> Genbank / AY792511

<309> 2004-11-15

<313> (1)..(2527)

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 1 5 10 15

Lys Lys Leu Ile Val Arg Leu Asn Asn Val Gln Glu Gly Lys Gln Ile  
 20 25 30

Glu Thr Leu Val Gln Ile Leu Glu Asp Leu Leu Val Phe Thr Tyr Ser  
 35 40 45

Glu His Ala Ser Lys Leu Phe Gln Gly Lys Asn Ile His Val Pro Leu  
 50 55 60

Leu Ile Val Leu Asp Ser Tyr Met Arg Val Ala Ser Val Gln Gln Val  
 65 70 75 80

Gly	Trp	Ser	Leu	Leu	Cys	Lys	Leu	Ile	Glu	Val	Cys	Pro	Gly	Thr	Met	85	90	95	
Gln	Ser	Leu	Met	Gly	Pro	Gln	Asp	Val	Gly	Asn	Asp	Trp	Glu	Val	Leu	100	105	110	
Gly	Val	His	Gln	Leu	Ile	Leu	Lys	Met	Leu	Thr	Val	His	Asn	Ala	Ser	115	120	125	
Val	Asn	Leu	Ser	Val	Ile	Gly	Leu	Lys	Thr	Leu	Asp	Leu	Leu	Leu	Thr	130	135	140	
Ser	Gly	Lys	Ile	Thr	Leu	Leu	Ile	Leu	Asp	Glu	Glu	Ser	Asp	Ile	Phe	145	150	155	160
Met	Leu	Ile	Phe	Asp	Ala	Met	His	Ser	Phe	Pro	Ala	Asn	Asp	Glu	Val	165	170	175	
Gln	Lys	Leu	Gly	Cys	Lys	Ala	Leu	His	Val	Leu	Phe	Glu	Arg	Val	Ser	180	185	190	
Glu	Glu	Gln	Leu	Thr	Glu	Phe	Val	Glu	Asn	Lys	Asp	Tyr	Met	Ile	Leu	195	200	205	
Leu	Ser	Ala	Ser	Thr	Asn	Phe	Lys	Asp	Glu	Glu	Glu	Ile	Val	Leu	His	210	215	220	
Val	Leu	His	Cys	Leu	His	Ser	Leu	Ala	Ile	Pro	Cys	Asn	Asn	Val	Glu	225	230	235	240
Val	Leu	Met	Ser	Gly	Asn	Val	Arg	Cys	Tyr	Asn	Ile	Val	Val	Glu	Ala	245	250	255	
Met	Lys	Ala	Phe	Pro	Met	Ser	Glu	Arg	Ile	Gln	Glu	Val	Ser	Cys	Cys	260	265	270	
Leu	Leu	His	Arg	Leu	Thr	Leu	Gly	Asn	Phe	Phe	Asn	Ile	Leu	Val	Leu	275	280	285	
Asn	Glu	Val	His	Glu	Phe	Val	Val	Lys	Ala	Val	Gln	Gln	Tyr	Pro	Glu	290	295	300	

Asn Ala Ala Leu Gln Ile Ser Ala Leu Ser Cys Leu Ala Leu Leu Thr  
305 310 315 320

Glu Thr Ile Phe Leu Asn Gln Asp Leu Glu Glu Lys Asn Glu Asn Gln  
325 330 335

Glu Asn Asp Asp Glu Gly Glu Glu Asp Lys Leu Phe Trp Leu Glu Ala  
340 345 350

Cys Tyr Lys Ala Leu Thr Trp His Arg Lys Asn Lys His Val Gln Glu  
355 360 365

Ala Ala Cys Trp Ala Leu Asn Asn Leu Leu Met Tyr Gln Asn Ser Leu  
370 375 380

His Glu Lys Ile Gly Asp Glu Asp Gly His Phe Pro Ala His Arg Glu  
385 390 395 400

Val Met Leu Ser Met Leu Met His Ser Ser Ser Lys Glu Val Phe Gln  
405 410 415

Ala Ser Ala Asn Ala Leu Ser Thr Leu Leu Glu Gln Asn Val Asn Phe  
420 425 430

Arg Lys Ile Leu Leu Ser Lys Gly Ile His Leu Asn Val Leu Glu Leu  
435 440 445

Met Gln Lys His Ile His Ser Pro Glu Val Ala Glu Ser Gly Cys Lys  
450 455 460

Met Leu Asn His Leu Phe Glu Gly Ser Asn Thr Ser Leu Asp Ile Met  
465 470 475 480

Ala Ala Val Val Pro Lys Ile Leu Thr Val Met Lys Arg His Glu Thr  
485 490 495

Ser Leu Pro Val Gln Leu Glu Ala Leu Arg Ala Ile Leu His Phe Ile  
500 505 510

Val Pro Gly Met Pro Glu Glu Ser Arg Glu Asp Thr Glu Phe His His  
515 520 525

Lys Leu Asn Met Val Lys Lys Gln Cys Phe Lys Asn Asp Ile His Lys

530

535

540

Leu Val Leu Ala Ala Leu Asn Arg Phe Ile Gly Asn Pro Gly Ile Gln  
545 550 555 560

Lys Cys Gly Leu Lys Val Ile Ser Ser Ile Val His Phe Pro Asp Ala  
565 570 575

Leu Glu Met Leu Ser Leu Glu Gly Ala Met Asp Ser Val Leu His Thr  
580 585 590

Leu Gln Met Tyr Pro Asp Asp Gln Glu Ile Gln Cys Leu Gly Leu Ser  
595 600 605

Leu Ile Gly Tyr Leu Ile Thr Lys Lys Asn Val Phe Ile Gly Thr Gly  
610 615 620

His Leu Leu Ala Lys Ile Leu Val Ser Ser Leu Tyr Arg Phe Lys Asp  
625 630 635 640

Val Ala Glu Ile Gln Thr Lys Gly Phe Gln Thr Ile Leu Ala Ile Leu  
645 650 655

Lys Leu Ser Ala Ser Phe Ser Lys Leu Leu Val His His Ser Phe Asp  
660 665 670

Leu Val Ile Phe His Gln Met Ser Ser Asn Ile Met Glu Gln Lys Asp  
675 680 685

Gln Gln Phe Leu Asn Leu Cys Cys Lys Cys Phe Ala Lys Val Ala Met  
690 695 700

Asp Asp Tyr Leu Lys Asn Val Met Leu Glu Arg Ala Cys Asp Gln Asn  
705 710 715 720

Asn Ser Ile Met Val Glu Cys Leu Leu Leu Leu Gly Ala Asp Ala Asn  
725 730 735

Gln Ala Lys Glu Gly Ser Ser Leu Ile Cys Gln Val Cys Glu Lys Glu  
740 745 750

Ser Ser Pro Lys Leu Val Glu Leu Leu Leu Asn Ser Gly Ser Arg Glu  
755 760 765

Gln Asp Val Arg Lys Ala Leu Thr Ile Ser Ile Gly Lys Gly Asp Ser  
770 775 780

Gln Ile Ile Ser Leu Leu Leu Arg Arg Leu Ala Leu Asp Val Ala Asn  
785 790 795 800

Asn Ser Ile Cys Leu Gly Gly Phe Cys Ile Gly Lys Val Glu Pro Ser  
805 810 815

Trp Leu Gly Pro Leu Phe Pro Asp Lys Thr Ser Asn Leu Arg Lys Gln  
820 825 830

Thr Asn Ile Ala Ser Thr Leu Ala Arg Met Val Ile Arg Tyr Gln Met  
835 840 845

Lys Ser Ala Val Glu Glu Gly Thr Ala Ser Gly Ser Asp Gly Asn Phe  
850 855 860

Ser Glu Asp Val Leu Ser Lys Phe Asp Glu Trp Thr Phe Ile Pro Asp  
865 870 875 880

Ser Ser Met Asp Ser Val Phe Ala Gln Ser Asp Asp Leu Asp Ser Glu  
885 890 895

Gly Ser Glu Gly Ser Phe Leu Val Lys Lys Lys Ser Asn Ser Ile Ser  
900 905 910

Val Gly Glu Phe Tyr Arg Asp Ala Val Leu Gln Arg Cys Ser Pro Asn  
915 920 925

Leu Gln Arg His Ser Asn Ser Leu Gly Pro Ile Phe Asp His Glu Asp  
930 935 940

Leu Leu Lys Arg Lys Arg Lys Ile Leu Ser Ser Asp Asp Ser Leu Arg  
945 950 955 960

Ser Ser Lys Leu Gln Ser His Met Arg His Ser Asp Ser Ile Ser Ser  
965 970 975

Leu Ala Ser Glu Arg Glu Tyr Ile Thr Ser Leu Asp Leu Ser Ala Asn  
980 985 990

Glu Leu Arg Asp Ile Asp Ala Leu	Ser Gln Lys Cys Cys	Ile Ser Val
995	1000	1005
His Leu Glu His Leu Glu Lys	Leu Glu Leu His Gln	Asn Ala Leu
1010	1015	1020
Thr Ser Phe Pro Gln Gln Leu	Cys Glu Thr Leu Lys	Ser Leu Thr
1025	1030	1035
His Leu Asp Leu His Ser Asn	Lys Phe Thr Ser Phe	Pro Ser Tyr
1040	1045	1050
Leu Leu Lys Met Ser Cys Ile	Ala Asn Leu Asp Val	Ser Arg Asn
1055	1060	1065
Asp Ile Gly Pro Ser Val Val	Leu Asp Pro Thr Val	Lys Cys Pro
1070	1075	1080
Thr Leu Lys Gln Phe Asn Leu	Ser Tyr Asn Gln Leu	Ser Phe Val
1085	1090	1095
Pro Glu Asn Leu Thr Asp Val	Val Glu Lys Leu Glu	Gln Leu Ile
1100	1105	1110
Leu Glu Gly Asn Lys Ile Ser	Gly Ile Cys Ser Pro	Leu Arg Leu
1115	1120	1125
Lys Glu Leu Lys Ile Leu Asn	Leu Ser Lys Asn His	Ile Ser Ser
1130	1135	1140
Leu Ser Glu Asn Phe Leu Glu	Ala Cys Pro Lys Val	Glu Ser Phe
1145	1150	1155
Ser Ala Arg Met Asn Phe Leu	Ala Ala Met Pro Phe	Leu Pro Pro
1160	1165	1170
Ser Met Thr Ile Leu Lys Leu	Ser Gln Asn Lys Phe	Ser Cys Ile
1175	1180	1185
Pro Glu Ala Ile Leu Asn Leu	Pro His Leu Arg Ser	Leu Asp Met
1190	1195	1200



Ser Ser Asn Asp Ile Gln Tyr Leu Pro Gly Pro Ala His Trp Lys  
1205 1210 1215

Ser Leu Asn Leu Arg Glu Leu Leu Phe Ser His Asn Gln Ile Ser  
1220 1225 1230

Ile Leu Asp Leu Ser Glu Lys Ala Tyr Leu Trp Ser Arg Val Glu  
1235 1240 1245

Lys Leu His Leu Ser His Asn Lys Leu Lys Glu Ile Pro Pro Glu  
1250 1255 1260

Ile Gly Cys Leu Glu Asn Leu Thr Ser Leu Asp Val Ser Tyr Asn  
1265 1270 1275

Leu Glu Leu Arg Ser Phe Pro Asn Glu Met Gly Lys Leu Ser Lys  
1280 1285 1290

Ile Trp Asp Leu Pro Leu Asp Glu Leu His Leu Asn Phe Asp Phe  
1295 1300 1305

Lys His Ile Gly Cys Lys Ala Lys Asp Ile Ile Arg Phe Leu Gln  
1310 1315 1320

Gln Arg Leu Lys Lys Ala Val Pro Tyr Asn Arg Met Lys Leu Met  
1325 1330 1335

Ile Val Gly Asn Thr Gly Ser Gly Lys Thr Thr Leu Leu Gln Gln  
1340 1345 1350

Leu Met Lys Thr Lys Lys Ser Asp Leu Gly Met Gln Ser Ala Thr  
1355 1360 1365

Val Gly Ile Asp Val Lys Asp Trp Pro Ile Gln Ile Arg Asp Lys  
1370 1375 1380

Arg Lys Arg Asp Leu Val Leu Asn Val Trp Asp Phe Ala Gly Arg  
1385 1390 1395

Glu Glu Phe Tyr Ser Thr His Pro His Phe Met Thr Gln Arg Ala  
1400 1405 1410

Leu Tyr Leu Ala Val Tyr Asp Leu Ser Lys Gly Gln Ala Glu Val

1415		1420		1425
Asp Ala Met Lys Pro Trp Leu Phe Asn Ile Lys Ala Arg Ala Ser				
1430		1435		1440
Ser Ser Pro Val Ile Leu Val Gly Thr His Leu Asp Val Ser Asp				
1445		1450		1455
Glu Lys Gln Arg Lys Ala Cys Met Ser Lys Ile Thr Lys Glu Leu				
1460		1465		1470
Leu Asn Lys Arg Gly Phe Pro Ala Ile Arg Asp Tyr His Phe Val				
1475		1480		1485
Asn Ala Thr Glu Glu Ser Asp Ala Leu Ala Lys Leu Arg Lys Thr				
1490		1495		1500
Ile Ile Asn Glu Ser Leu Asn Phe Lys Ile Arg Asp Gln Leu Val				
1505		1510		1515
Val Gly Gln Leu Ile Pro Asp Cys Tyr Val Glu Leu Glu Lys Ile				
1520		1525		1530
Ile Leu Ser Glu Arg Lys Asn Val Pro Ile Glu Phe Pro Val Ile				
1535		1540		1545
Asp Arg Lys Arg Leu Leu Gln Leu Val Arg Glu Asn Gln Leu Gln				
1550		1555		1560
Leu Asp Glu Asn Glu Leu Pro His Ala Val His Phe Leu Asn Glu				
1565		1570		1575
Ser Gly Val Leu Leu His Phe Gln Asp Pro Ala Leu Gln Leu Ser				
1580		1585		1590
Asp Leu Tyr Phe Val Glu Pro Lys Trp Leu Cys Lys Ile Met Ala				
1595		1600		1605
Gln Ile Leu Thr Val Lys Val Glu Gly Cys Pro Lys His Pro Lys				
1610		1615		1620
Gly Ile Ile Ser Arg Arg Asp Val Glu Lys Phe Leu Ser Lys Lys				
1625		1630		1635

Arg Lys Phe Pro Lys Asn Tyr Met Ser Gln Tyr Phe Lys Leu Leu  
1640 1645 1650

Glu Lys Phe Gln Ile Ala Leu Pro Ile Gly Glu Glu Tyr Leu Leu  
1655 1660 1665

Val Pro Ser Ser Leu Ser Asp His Arg Pro Val Ile Glu Leu Pro  
1670 1675 1680

His Cys Glu Asn Ser Glu Ile Ile Ile Arg Leu Tyr Glu Met Pro  
1685 1690 1695

Tyr Phe Pro Met Gly Phe Trp Ser Arg Leu Ile Asn Arg Leu Leu  
1700 1705 1710

Glu Ile Ser Pro Tyr Met Leu Ser Gly Arg Glu Arg Ala Leu Arg  
1715 1720 1725

Pro Asn Arg Met Tyr Trp Arg Gln Gly Ile Tyr Leu Asn Trp Ser  
1730 1735 1740

Pro Glu Ala Tyr Cys Leu Val Gly Ser Glu Val Leu Asp Asn His  
1745 1750 1755

Pro Glu Ser Phe Leu Lys Ile Thr Val Pro Ser Cys Arg Lys Gly  
1760 1765 1770

Cys Ile Leu Leu Gly Gln Val Val Asp His Ile Asp Ser Leu Met  
1775 1780 1785

Glu Glu Trp Phe Pro Gly Leu Leu Glu Ile Asp Ile Cys Gly Glu  
1790 1795 1800

Gly Glu Thr Leu Leu Lys Lys Trp Ala Leu Tyr Ser Phe Asn Asp  
1805 1810 1815

Gly Glu Glu His Gln Lys Ile Leu Leu Asp Asp Leu Met Lys Lys  
1820 1825 1830

Ala Glu Glu Gly Asp Leu Leu Val Asn Pro Asp Gln Pro Arg Leu  
1835 1840 1845

Thr	Ile	Pro	Ile	Ser	Gln	Ile	Ala	Pro	Asp	Leu	Ile	Leu	Ala	Asp
1850						1855						1860		

Leu	Pro	Arg	Asn	Ile	Met	Leu	Asn	Asn	Asp	Glu	Leu	Glu	Phe	Glu
1865						1870						1875		

Gln	Ala	Pro	Glu	Phe	Leu	Leu	Gly	Asp	Gly	Ser	Phe	Gly	Ser	Val
1880						1885						1890		

Tyr	Arg	Ala	Ala	Tyr	Glu	Gly	Glu	Glu	Val	Ala	Val	Lys	Ile	Phe
1895						1900						1905		

Asn	Lys	His	Thr	Ser	Leu	Arg	Leu	Leu	Arg	Gln	Glu	Leu	Val	Val
1910						1915						1920		

Leu	Cys	His	Leu	His	His	Pro	Ser	Leu	Ile	Ser	Leu	Leu	Ala	Ala
1925						1930						1935		

Gly	Ile	Arg	Pro	Arg	Met	Leu	Val	Met	Glu	Leu	Ala	Ser	Lys	Gly
1940						1945						1950		

Ser	Leu	Asp	Arg	Leu	Leu	Gln	Gln	Asp	Lys	Ala	Ser	Leu	Thr	Arg
1955						1960						1965		

Thr	Leu	Gln
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